

MUHAMMAD HAMMAD RAZA

BATCH # 10

ROLL: 512343

SMIT

MALIR CAMPUS, KARACHI

TASK 01

```
[2]
✓ 27s
s = input("Enter a string: ")
count_letters = 0
count_digits = 0
count_special = 0
for ch in s:
    if ch.isalpha():
        count_letters += 1
    elif ch.isdigit():
        count_digits += 1
    else:
        count_special += 1
print("Letters:", count_letters)
print("Digits:", count_digits)
print("Special characters:", count_special)

Enter a string: hammad123!@.raza
Letters: 10
Digits: 3
Special characters: 3
```

TASK 02

```
[3]
✓ 26s
start = int(input("Start: "))
end = int(input("End: "))
found = []
for n in range(start, end + 1):
    if (n % 4 == 0) != (n % 6 == 0):
        found.append(str(n))
print(", ".join(found))

Start: 10
End: 30
16, 18, 20, 28, 30
```

TASK 03

```
[4]
✓ 18s

s = input("Enter a sentence: ")
count_upper = 0
count_lower = 0
for ch in s:
    if ch.isupper():
        count_upper += 1
    elif ch.islower():
        count_lower += 1
print("Uppercase:", count_upper)
print("Lowercase:", count_lower)

Enter a sentence: My Name Is Muhammad Hammad Raza
Uppercase: 6
Lowercase: 20
```

TASK 04

```
[5]
✓ 11s

w = input("Enter a word: ")
out = ""
for ch in w:
    if ch.lower() in "aeiou":
        out += "*"
    else:
        out += ch
print(out)

Enter a word: Hammad
H*mm*d
```

TASK 05

```
[6]
✓ 28s

s = input("Enter a string with letters and digits: ")
total = 0
for ch in s:
    if ch.isdigit():
        total += int(ch)
print("Sum of digits:", total)

Enter a string with letters and digits: ha23mm43d
Sum of digits: 12
```

TASK 06

```
[7]
✓ 56s

sent = input("Enter a sentence: ")
words = sent.split()
count = 0
for word in words:
    if word and word[0].lower() in "aeiou":
        count += 1
print("Words starting with a vowel:", count)

Enter a sentence: Hammad is pursuing an Information Technology field
Words starting with a vowel: 3
```

TASK 07

```
[10]
✓ 4s

start = int(input("Start: "))
end = int(input("End: "))
for n in range(start, end + 1):
    total = 0
    for d in str(n):
        total += int(d)
    if total % 2 == 0:
        print(n, end=" ")

Start: 10
End: 20
11 13 15 17 19 20
```

TASK 08

```
[15]
✓ 8s

s = input("Enter a string: ")
counts = {}
for ch in s:
    counts[ch] = counts.get(ch, 0) + 1
for ch in sorted(counts):
    print(f"{ch}: {counts[ch]}", end=", ")

Enter a string: muhammadhammadraza
a: 6, d: 2, h: 2, m: 5, r: 1, u: 1, z: 1,
```

TASK 09

[19]

✓ 6s

```
start = int(input("Start: "))
end = int(input("End: "))
for n in range(start, end + 1):
    if "3" in str(n):
        print(n, end=" ")
```

Start: 1

End: 40

3 13 23 30 31 32 33 34 35 36 37 38 39

TASK 10

[22]

✓ 4s

```
start = int(input("Start: "))
end = int(input("End: "))
for n in range(start, end + 1):
    total = 0
    for d in str(n):
        total += int(d)
    if ((n % 4 == 0) or (n % 6 == 0)) and not (n % 4 == 0 and n % 6 == 0):
        if total % 2 == 1 and n % 9 != 0:
            print(n, end=" ")
```

Start: 1

End: 100

16 30 32 52 56 76 78 92 100